Claims

1. A ~~P~~part of an articulation; the part comprising
a rubbing surface on which rubbing occurs~~(4) rubbing against a second surface~~, ~~said part comprising~~
at least one structure ~~(1, 2)~~ made of steel, the ~~external~~ rubbing surface ~~(4)~~ of said steel structure being covered by at least one layer of lubricating thermoplastic polymers ~~(3)~~, ~~characterised in that~~ wherein the steel structure ~~(1)~~ is not made from amorphous steel, the part comprises a layer of amorphous steel ~~(2)~~ arranged between on the one hand the steel structure ~~(1)~~ and on the other hand the layer of lubricating thermoplastic polymers ~~(3)~~.

2. Part according to claim 1, ~~characterised in that~~ wherein the steel composition comprises at least 70% amorphous phase.

3. Part according to one of claims 1 or 2, ~~characterised in that~~ wherein the surface on which the layer of thermoplastic polymers ~~(3)~~ is applied forms a relief ~~(5)~~ at least partly filled by the layer ~~(3)~~ of thermoplastic polymers.

4. Part according to claim 3, ~~characterised in that~~ wherein the external layer ~~(3)~~ of polymers is formed by a first thickness ~~(6)~~ which fills the reliefs ~~(5)~~ of the external surface and a second thickness ~~(7)~~ which forms the rubbing surface ~~(4)~~ of the part.

5. Part according to one of claims 1 to 4, ~~characterised in that~~ wherein at least one thermoplastic polymer is a semi-crystalline thermostable thermoplastic.

6. Articulation forming a sliding assembly, ~~characterised in that it~~ wherein the articulation comprises at least one part bearing a rubbing surface ~~(4)~~ according to one of claims 1 to 5.

7. Method for treating a surface of a steel structure ~~(1, 2)~~ in order to reduce the resistance to friction and to obtain a part according to one of claims 1 to 5, ~~characterised in that~~ wherein the method of treatment comprises at least:

- a step of smoothing a steel surface,
- a step of degreasing the steel surface,
- a step of thermal spray coating at least one substrate selected from a list comprising in particular chromium (Cr), silicon (Si), manganese (Mn), boron (B) and iron (Fe)
- a step of smoothing the surface made of amorphous steel to be treated,
- a step of cleaning the smoothed surface,
- a step of impregnating a liquid thermoplastic polymer ~~(3)~~ onto the smoothed-cleaned surface,
- a step of polymerisation by heating.

~~8. Method for treating a steel surface according to claim 7, characterised in that the method also comprises prior to the preceding steps:~~

~~- a step of smoothing the steel surface,~~
~~- a step of degreasing the steel surface,~~
~~- a step of thermal spray coating at least one substrate selected from a list comprising in particular chromium (Cr), silicon (Si), manganese (Mn), boron (B) and iron (Fe)~~.

8~~9~~. Method for treating a steel surface according to ~~one of~~ claim~~s~~ 7 ~~or 8~~, ~~characterised in that~~ wherein the method comprises at least

- a step of abrasion of the surface by spray coating corundum until a predetermined relief surface is obtained,
- a step of cleaning the abraded steel surface.